```
RESULT  1
CEZK945
LOCUS       CEZK945     27981 bp    DNA             INV       06-SEP-1999
DEFINITION  Caenorhabditis elegans cosmid ZK945, complete sequence.
ACCESSION   Z48544
VERSION     Z48544.1  GI:695493
KEYWORDS    HTG; ARD1; Esterase; Mucin; Polycistic kidney disease protein 1;
            Proteasome component(A-type); Pumilio.
SOURCE      Caenorhabditis elegans.
  ORGANISM  Caenorhabditis elegans
            Eukaryota; Metazoa; Nematoda; Secernentea; Rhabditia; Rhabditida;
            Rhabditina; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
REFERENCE   1  (bases 1 to 27981)
  AUTHORS   Wilson,R., Ainscough,R., Anderson,K., Baynes,C., Berks,M.,
            Bonfield,J., Burton,J., Connell,M., Copsey,T., Cooper,J.,
            Coulson,A., Craxton,M., Dear,S., Du,Z., Durbin,R., Favello,A.,
            Fulton,L., Gardner,A., Green,P., Hawkins,T., Hillier,L., Jier,M.,
            Johnston,L., Jones,M., Kershaw,J., Kirsten,J., Laister,N.,
            Latreille,P., Lightning,J., Lloyd,C., McMurray,A., Mortimore,B.,
            O'Callaghan,M., Parsons,J., Percy,C., Rifken,L., Roopra,A.,
            Saunders,D., Shownkeen,R., Smaldon,N., Smith,A., Sonnhammer,E.,
            Staden,R., Sulston,J., Thierry-Mieg,J., Thomas,K., Vaudin,M.,
            Vaughan,K., Waterston,R., Watson,A., Weinstock,L.,
            Wilkinson-Sproat,J. and Wohldman,P.
  TITLE     2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
            elegans
  JOURNAL   Nature 368 (6466), 32-38 (1994)
  MEDLINE   94150718
REFERENCE   2  (bases 1 to 27981)
  AUTHORS   Wilkinson,J.
  TITLE     Direct Submission
  JOURNAL   Submitted (01-MAR-1995) Louis, MO 63110, USA. E-mail:
            jes@sanger.ac.uk or rw@nematode.wustl.edu
COMMENT     Coding sequences below are predicted from computer analysis, using
            predictions from Genefinder (P. Green, U. Washington), and other
            available information.
            For a graphical representation of this sequence and its analysis
            see:-
            http://webace.sanger.ac.uk/cgi-
            bin/display?db=wormace&class=Sequence &object=ZK945
            Current sequence finishing criteria for the C. elegans genome
            sequencing consortium are that all bases are either sequenced
            unambiguously on both strands, or on a single strand with both a
            dye primer and dye terminator reaction, from distinct subclones.
            Exceptions are indicated by an explicit note.
            IMPORTANT:  This sequence is NOT necessarily the entire insert of
            the specified clone.  It may be shorter because we only sequence
            overlapping sections once, or longer because we arrange for a small
            overlap between neighbouring submissions.
            IMPORTANT: This sequence is not the entire insert of clone ZK945.
            It may be shorter because we only sequence overlapping sections
            once, or longer because we arrange for a small overlap between
            neighbouring submissions.
            The true left end of clone ZK945 is at 1 in this sequence. The true
            right end of clone ZK945 is at 8882 in
            sequence Z48582.
            The true left end of clone F27E5 is at 27881 in this sequence. The
            true right end of clone C18D1 is at 2079 in this sequence. The
            start of this sequence (1. .104) overlaps with the end of sequence
            Z48543.
            The end of this sequence (27881. .27981) overlaps with the start of
            sequence Z48582.
FEATURES            Location/Qualifiers
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Query Match 96.4%; Score 12222; DB 34; Length 27981;
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Matches 12222; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy   2161 cgattttcccatagggatttcctgaatttcagtaatgaattctgatagcttctttttata 2220
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Db  17920 CGATTTTCCCATAGGGATTTCCTGAATTTCAGTAATGAATTCTGATAGCTTCTTTTTATA 17979

Qy   2221 aaacttactcaagaacgtctcagctggcttagctcttagcaatgcttcctccaacttgtt 2280
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  17980 AAACTTACTCAAGAACGTCTCAGCTGGCTTAGCTCTTAGCAATGCTTCCTCCAACTTGTT 18039

Qy   2281 aatgattttatgactctttctggttttcaaaattaaaaacgcccaaatcaatcccttaat 2340
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18040 AATGATTTTATGACTCTTTCTGGTTTTCAAAATTAAAAACGCCCAAATCAATCCCTTAAT 18099

Qy   2341 tggctcgaacaccactgcccatagaatcagactgatcagaaatcggatatagaaagagtt 2400
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18100 TGGCTCGAACACCACTGCCCATAGAATCAGACTGATCAGAAATCGGATATAGAAAGAGTT 18159

Qy   2401 ggctaaatcatccatcaagctcattccagctccagaaatataaataagacccatgagaac 2460
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Db  18160 GGCTAAATCATCCATCAAGCTCATTCCAGCTCCAGAAATATAAATAAGACCCATGAGAAC 18219

Qy   2461 tggaaatactatgatggtacgtgccatcccagccatgaacatcggccatgaaccactatt 2520
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Db  18220 TGGAAATACTATGATGGTACGTGCCATCCCAGCCATGAACATCGGCCATGAACCACTATT 18279

Qy   2521 atccttgaattccggatcctctctctttcgttttttgtagtagtaatgttcactgtggga 2580
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18280 ATCCTTGAATTCCGGATCCTCTCTCTTTCGTTTTTTGTAGTAGTAATGTTCACTGTGGGA 18339

Qy   2581 acgacatttggtgcataataaaatgtgcaatgagttgaggaaagtgataagaacaccgaa 2640
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18340 ACGACATTTGGTGCATAATAAAATGTGCAATGAGTTGAGGAAAGTGATAAGAACACCGAA 18399

Qy   2641 tccaactccgaatgcaatatcttttatagtgaaagtgaactcggagacactcttcgaatc 2700
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18400 TCCAACTCCGAATGCAATATCTTTTATAGTGAAAGTGAACTCGGAGACACTCTTCGAATC 18459

Qy   2701 actgataatcgaattatcgctcttcagaattgtgatgctaatcatgctgaccacaacaag 2760
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18460 ACTGATAATCGAATTATCGCTCTTCAGAATTGTGATGCTAATCATGCTGACCACAACAAG 18519

Qy   2761 tgagaagatgatactgacagaatagtcttgccttgacactcgatccctcaaccgattgcc 2820
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18520 TGAGAAGATGATACTGACAGAATAGTCTTGCCTTGACACTCGATCCCTCAACCGATTGCC 18579

Qy   2821 tccaccagtaaacatggcaaaccaggaaattgtttgagccagcatatgcatactcattga 2880
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18580 TCCACCAGTAAACATGGCAAACCAGGAAATTGTTTGAGCCAGCATATGCATACTCATTGA 18639

Qy   2881 ctcatccaaaaaccttcgcttatactccactcgcgctagtctttcagtctctccgtctcc 2940
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18640 CTCATCCAAAAACCTTCGCTTATACTCCACTCGCGCTAGTCTTTCAGTCTCTCCGTCTCC 18699

Qy   2941 gtttttagttccaagccaattgttgaaagggaagtagtagatatcctgagtctgtagatc 3000
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  18700 GTTTTTAGTTCCAAGCCAATTGTTGAAAGGGAAGTAGTAGATATCCTGAGTCTGTAGATC 18759

Qy   3001 tttcacaattattcgattgcaataccacgactctcggtgatctagaccagcatcgtcaag 3060
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Db  18760 TTTCACAATTATTCGATTGCAATACCACGACTCTCGGTGATCTAGACCAGCATCGTCAAG 18819

Qy   3061 ccagagtctcatgtattccaactcgccaagagggctgaaatattaaatttggtaaatgat 3120
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Db  18820 CCAGAGTCTCATGTATTCCAACTCGCCAAGAGGGCTGAAATATTAAATTTGGTAAATGAT 18879

Qy   3121 ttttgatttgaaaacttgaattagtccatcaaaaaccaaaacaagttaggggataaaaa 3180
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Db  18880 TTTTGATTTGAAAACTTGAATTAGTCCATCAAAAACCAAAACAAGTTAGGGGGATAAAAA 18939

Qy   3181 aaactacacgtccaatctataattagctcaactcacacttgaaccaatcagcgttgtccg 3240
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Db  18940 AAACTACACGTCCAATCTATAATTAGCTCAACTCACACTTGAACCAATCAGCGTTGTCCG 18999

Qy   3241 aatttgcataattggttgaaacgtgtgtggagctaatcggtattatttatttttaattatt 3300
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Db  19000 AATTTGCATAATTGGTTGAAACGTGTGTGGAGCTAATCGGTATTATTTATTTTAATTATT 19059

Qy   3301 tttttattgctaaaaatcagcgtcttctaacttacaatgccgttgtcatcacaaatcgat 3360
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Db  19060 TTTTTATTGCTAAAAATCAGCGTCTTCTAACTTACAATGCCGTTGTCATCACAAATCGAT 19119

Qy   3361 cagtggttccccatgaaaacggaaactcccaattaccatcttcttctgatctgaacgatc 3420
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Db  19120 CAGTGGTTCCCCATGAAAACGGAAACTCCCAATTACCATCTTCTTCTGATCTGAACGATC 19179

Qy   3421 ggaaaatctgatccccttcatttccagataaattgaaacatatcgtactatccgtagttg 3480
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Db 19180 GGAAAATCTGATCCCCTTCATTTCCAGATAAATTGAAACATATCGTACTATCCGTAGTTG 19239
Qy  3481 caaacattcgatatccagtctccacggcaatcacatacatgtatccatcatgaggctcat 3540
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Db 19240 CAAACATTCGATATCCAGTCTCCACGGCAATCACATACATGTATCCATCATGAGGCTCAT 19299
Qy  3541 tgtctttcagaaaacgaagtctcccgcgtgatgcatctttacgttgacagatgattgcat 3600
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 19300 TGTCTTTCAGAAAACGAAGTCTCCCGCGTGATGCATCTTTACGTTGACAGATGATTGCAT 19359
Qy  3601 tgatggtaagacatccgtaaactactagcatgaaaacagcggcaatcatcactttcacat 3660
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Db 19360 TGATGGTAAGACATCCGTAAACTACTAGCATGAAAACAGCGGCAATCATCACTTTCACAT 19419
Qy  3661 tcttttcgatttcattcacattataattgtaagagaaatctgcatcaatagttggattga 3720
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 19420 TCTTTTCGATTTCATTCACATTATAATTGTAAGAGAAATCTGCATCAATAGTTGGATTGA 19479
Qy  3721 atgcaccaacagagaacattgttaaatgatcagttgaacaattaacgaactgcattcctt 3780
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Db 19480 ATGCACCAACAGAGAACATTGTTAAATGATCAGTTGAACAATTAACGAACTGCATTCCTT 19539
Qy  3781 gtccatcacttggatacattccttcagaattgaagacatccgatgttttctgatagaagt 3840
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 19540 GTCCATCACTTGGATACATTCCTTCAGAATTGAAGACATCCGATGTTTTCTGATAGAAGT 19599
Qy  3841 aacatcctttactcactgcagcgacttgataatccattggtacacttcgtgcaaatgacc 3900
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Db 19600 AACATCCTTTACTCACTGCAGCGACTTGATAATCCATTGGTACACTTCGTGCAAATGACC 19659
Qy  3901 actgcattgaatcgtactgaccatagtttacaatatccgaactatttccagtgttagtag 3960
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Db 19660 ACTGCATTGAATCGTACTGACCATAGTTTACAATATCCGAACTATTTCCAGTGTTAGTAG 19719
Qy  3961 agctatttctttttccaattccaataaagaaaagtccagtgttgttgatcaaatttccgg 4020
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 19720 AGCTATTTCTTTTTCCAATTCCAATAAAGAAAAGTCCAGTGTTGTTGATCAAATTTCCGG 19779
Qy  4021 cggtgacaaaataattgcttgtcttgttcaatgtgttcaagtcaaagatccattcatgat 4080
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Db 19780 CGGTGACAAAATAATTGCTTGTCTTGTTCAATGTGTTCAAGTCAAAGATCCATTCATGAT 19839
Qy  4081 ttgattcaagtgggccaggaagactttggaatgatgagaacatgtaggtgtcatcgttgt 4140
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Db 19840 TTGATTCAAGTGGGCCAGGAAGACTTTGGAATGATGAGAACATGTAGGTGTCATCGTTGT 19899
Qy  4141 ttggaatttcatagtcttgagatgcaataatctctacttgaagcgagttgttccagttag 4200
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Db 19900 TTGGAATTTCATAGTCTTGAGATGCAATAATCTCTACTTGAAGCGAGTTGTTCCAGTTAG 19959
Qy  4201 tggttcgaaaagcatgaagatctaatatctgataactggcaaagtctccttgttgcatta 4260
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Db 19960 TGGTTCGAAAAGCATGAAGATCTAATATCTGATAACTGGCAAAGTCTCCTTGTTGCATTA 20019
Qy  4261 aagttagcactgcatcatcctcacttcccctgccgttcacataaattggagcagtagttc 4320
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Db 20020 AAGTTAGCACTGCATCATCCTCACTTCCCCTGCCGTTCACATAAATTGGAGCAGTAGTTC 20079
Qy  4321 cggttattctaaaaacattttaacttatattggaaaaattataggttattcaataaactt 4380
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Db 20080 CGGTTATTCTAAAAACATTTTAACTTATATTGGAAAAATTATAGGTTATTCAATAAACTT 20139
Qy  4381 acggaatgattatctgattctcatctttgatatgtgcttcaagtgcacctgaggtaatta 4440
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Db 20140 ACGGAATGATTATCTGATTCTCATCTTTGATATGTGCTTCAAGTGCACCTGAGGTAATTA 20199
Qy  4441 acatatcaaagttatccacataagttctcgggtttgtggcatagcaaactaatccaacttt 4500
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Db 20200 ACATATCAAAGTTATCCACATAAGTTCTCGGGTTTGTGGCATAGCAAACTAATCCAACTT 20259
Qy  4501 gaatcagtgttttatctgtgatctcagcagtattcagagttgaagcgggcgatggaagtt 4560
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Db 20260 GAATCAGTGTTTTATCTGTGATCTCAGCAGTATTCAGAGTTGAAGCGGGCGATGGAAGTT 20319
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Qy  4561 tgaatgcccattcttcacagttttgagtttttcctacaatatttgatgcatcatcgataa 4620
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Db 20320 TGAATGCCCATTCTTCACAGTTTTGAGTTTTTCCTACAATATTTGATGCATCATCGATAA 20379
Qy  4621 cgattaccattccggttccgtcgacgctattctaaaaatttgattgacattagtgtaaac 4680
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Db 20380 CGATTACCATTCCGGTTCCGTCGACGCTATTCTAAAAATTTGATTGACATTAGTGTAAAC 20439
Qy  4681 tgtaacttttgattaccgagtagtcataaggtaagttgccagttgctatagctctagct 4740
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 20440 TGTAACTTTTGATTACCGAGTAGTCATAAGGTAAGTTGCCAGTTGCTATAGCTCTAGCT 20499
Qy  4741 gctagcgtgttttccagggtatctagtgtagatgcaagttggttggctagatttttggcc 4800
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Db 20500 GCTAGCGTGTTTTCCAGGGTATCTAGTGTAGATGCAAGTTGGTTGGCTAGATTTTTGGCC 20559
Qy  4801 tgaatagaatatgaataattccaaactcaaaaagttttaaaaactcacgatgttcttctg 4860
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Db 20560 TGAATAGAATATGAATAATTCCAAACTCAAAAAGTTTTAAAAACTCACGATGTTCTTCTG 20619
Qy  4861 gaacatttttgtgacgtaagcagcccattcttctgacgtcatttcctccacgtacacaat 4920
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Db 20620 GAACATTTTTGTGACGTAAGCAGCCCATTCTTCTGACGTCATTTCCTCCACGTACACAAT 20679
Qy  4921 attgtctggatcacttggtagcacgttgtacaaggaatcatagttatctgttgcatattt 4980
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 20680 ATTGTCTGGATCACTTGGTAGCACGTTGTACAAGGAATCATAGTTATCTGTTGCATATTT 20739
Qy  4981 caaattggcagctagatcagaagaaagaggattgtcgagagcaatcttcaacgctgatgt 5040
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Db 20740 CAAATTGGCAGCTAGATCAGAAGAAAGAGGATTGTCGAGAGCAATCTTCAACGCTGATGT 20799
Qy  5041 taaagatcccgcaattgaaaggagagagttggatgtctgaaaattattattatgacatct 5100
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Db 20800 TAAAGATCCCGCAATTGAAAGGAGAGAGTTGGATGTCTGAAAATTATTATTATGACATCT 20859
Qy  5101 accaaagtttagtgtatgaatacatcattaatctctgcatctgtcatagtcattccatta 5160
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Db 20860 ACCAAAGTTTAGTGTATGAATACATCATTAATCTCTGCATCTGTCATAGTCATTCCATTA 20919
Qy  5161 tttgtaagaaaatcttgagtattgctaagaatcgtttcaatttgttgctgggattcttga 5220
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Db 20920 TTTGTAAGAAAATCTTGAGTATTGCTAAGAATCGTTTCAATTTGTTGCTGGGATTCTTGA 20979
Qy  5221 ttcatcaaactttgcggcacaatatctggatatttaaaatgatttgtatgcatttgtgta 5280
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Db 20980 TTCATCAAACTTTGCGGCACAATATCTGGATATTTAAAATGATTTGTATGCATTTGTGTA 21039
Qy  5281 tttatttttttgagttaccaattttagttcccgaaacatcgccttccgtcgaaacttgtc 5340
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Db 21040 TTTATTTTTTTGAGTTACCAATTTTAGTTCCCGAAACATCGCCTTCCGTCGAAACTTGTC 21099
Qy  5341 cattctgaattacatatccattcgttccatttctaataatcaaccctccatcgattctca 5400
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Db 21100 CATTCTGAATTACATATCCATTCGTTCCATTTCTAATAATCAACCCTCCATCGATTCTCA 21159
Qy  5401 ttttctgtgtgtcagagaattccattaaagttctcaaaattaaagttcctatacaaaata 5460
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Db 21160 TTTTCTGTGTGTCAGAGAATTCCATTAAAGTTCTCAAAATTAAAGTTCCTATACAAAATA 21219
Qy  5461 tccattcgagactatacttacaccgtatgagtttgagaaccagatgtgtaagttccggct 5520
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Db 21220 TCCATTCGAGACTATACTTACACCGTATGAGTTTGAGAACCAGATGTGTAAGTTCCGGCT 21279
Qy  5521 gttatctgaataccgtaacctccaagcgccaaagaaacaatattgtaggtgggagaactg 5580
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 21280 GTTATCTGAATACCGTAACCTCCAAGCGCCAAAGAAACAATATTGTAGGTGGGAGAACTG 21339
Qy  5581 atcaccagagttgtcacagagtttgacaaataaagggcggtggagtctacgaaaaatgag 5640
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 21340 ATCACCAGAGTTGTCACAGAGTTTGACAAATAAAGGGCGGTGGAGTCTACGAAAAATGAG 21399
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Qy   5641 tagccgctgacatcgatggatgacgctttggagaagaatagctgcaagaaaagttatttt 5700
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Db  21400 TAGCCGCTGACATCGATGGATGACGCTTTGGAGAAGAATAGCTGCAAGAAAAGTTATTTT 21459

Qy   5701 gatattaacaactcatcagcaaaagtcttacagttcccgaaacggtgacaagtgtttgtt 5760
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  21460 GATATTAACAACTCATCAGCAAAAGTCTTACAGTTCCCGAAACGGTGACAAGTGTTTGTT 21519

Qy   5761 ccttaatcaatgattgcaaatcatctttggtgtacgaagccgtcggtgaaagagtagata 5820
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Db  21520 CCTTAATCAATGATTGCAAATCATCTTTGGTGTACGAAGCCGTCGGTGAAAGAGTAGATA 21579

Qy   5821 ttgagacagtttgagataaagcagagacagctggaattccaatgtcctgcggagacagca 5880
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Db  21580 TTGAGACAGTTTGAGATAAAGCAGAGACAGCTGGAATTCCAATGTCCTGCGGAGACAGCA 21639

Qy   5881 ccattcgcattgaataacttcccgcgtttgagaacacaagtggagaagtagtttgattga 5940
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Db  21640 CCATTCGCATTGAATAACTTCCCGCGTTTGAGAACACAAGTGGAGAAGTAGTTTGATTGA 21699

Qy   5941 ataaagcaaggttgacgtctgaaatttttagcgtcataaccagaccactcccattgcata 6000
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  [redacted] ATAAAGCAAGGTTGACGTCTGAAATTTTTAGCGTCATAACCAGACCACTCCCATTGCATA 21759

Qy   6001 cttactctcaataactatcggcatctgaatcaacttcttaaccgtgctcgctgaggatcc 6060
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Db  21760 CTTACTCTCAATAACTATCGGCATCTGAATCAACTTCTTAACCGTGCTCGCTGAGGATCC 21819

Qy   6061 atctgatgccacaaccgtgaagctgtcagcattgtatgagaaaatggcattatctgtgtc 6120
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Db  [redacted]820 ATCTGATGCCACAACCGTGAAGCTGTCAGCATTGTATGAGAAAATGGCATTATCTGTGTC 21879

Qy   6121 tacttcaacaaactttcctgttccattcgtgcaagttattgtgtaagtaactccaccata 6180
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Db  21880 TACTTCAACAAACTTTCCTGTTCCATTCGTGCAAGTTATTGTGTAAGTAACTCCACCATA 21939

Qy   6181 tgatgcagttactactagtcctctagatacaatattttgagtagaatgcagttttatcat 6240
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Db  21940 TGATGCAGTTACTACTAGTCCTCTAGATACAATATTTTGAGTAGAATGCAGTTTTATCAT 21999

Qy   6241 tgttccagattcaatctgaataaaaattgaaaaatttcatgtgctctacgatttataaat 6300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  22000 TGTTCCAGATTCAATCTGAATAAAAATTGAAAAATTTCATGTGCTCTACGATTTATAAAT 22059

Qy   6301 ttaccaataatatgtattgaacttctgagactgggatattgaacgaaaatgaagtgttct 6360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  22060 TTACCAATAATATGTATTGAACTTCTGAGACTGGGATATTGAACGAAAATGAAGTGTTCT 22119

Qy   6361 tctgacttgtggatcctactgttgaattgtcataagtgacattccaagcagttacataca 6420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  2[redacted] TCTGACTTGTGGATCCTACTGTTGAATTGTCATAAGTGACATTCCAAGCAGTTACATACA 22179

Qy   6421 tatcattataactatattcccctgattgaacatctccaactccactcattgtagccatta 6480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  22180 TATCATTATAACTATATTCCCCTGATTGAACATCTCCAACTCCACTCATTGTAGCCATTA 22239

Qy   6481 tatttccagaaaccagtgatcgtttgtcatctattttatcctgctcaacttgcacagtcc 6540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  [redacted]22240 TATTTCCAGAAACCAGTGATCGTTTGTCATCTATTTTATCCTGCTCAACTTGCACAGTCC 22299

Qy   6541 ttccatttgttgcgaacattccttggattccgatggcagctgctagcatagtgtccgcct 6600
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Db  22300 TTCCATTTGTTGCGAACATTCCTTGGATTCCGATGGCAGCTGCTAGCATAGTGTCCGCCT 22359

Qy   6601 gaacagtttcacataaactacaatgttctatattcaaaaagtcttacagtaacggtatct 6660
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Db  22360 GAACAGTTTCACATAAACTACAATGTTCTATATTCAAAAAGTCTTACAGTAACGGTATCT 22419

Qy   6661 ccatcaagctgtttataagatgcccgggtatctcctgtaaggtatattgtagatccgtaa 6720
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Db  22420 CCATCAAGCTGTTTATAAGATGCCCGGGTATCTCCTGTAAGGTATATTGTAGATCCGTAA 22479

Qy   6721 atgctgagctgtaagttgaaaacaattaactctcccaaccatcattttcttaccgtacac 6780
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Db  22480 ATGCTGAGCTGTAAGTTGAAAACAATTAACTCTCCCAACCATCATTTTCTTACCGTACAC 22539

Qy   6781 ctaggcgataccaatgtatatcccgatgcaataacatatccaaaaataaccgcgtaagtt 6840
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Db  22540 CTAGGCGATACCAATGTATATCCCGATGCAATAACATATCCAAAAATAACCGCGTAAGTT 22599

Qy   6841 ccatcttttgattttgtacttgatactcccaaggtatagactgtacttcctttgagagca 6900
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Qy   6961 agtttagtgataacttttgccatttcgtcggccaattccgaatttgttgttgcaatattg 7020
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Qy   7141 tgattgagaagagagctgcttgtgtttagagagttgttggatgcagatccatccattatc 7200
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Qy   7921 ataagttccagttgcaggtacaaagctggtcattgggttgaaagatacggaggcactata 7980
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Qy   7981 tgcaccatttttttccaactgtaatatagtacataaatgaaaattgataacgttgctaact 8040
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Qy   8041 agggagtgctctttgtactccatggaaatatgagtcggaaaactacttttcgggtagttt 8100
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Qy   8101 atgtcattttctacacgattctgaaagaaaatcctgccggttttgggttttagtgtgaaa 8160
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Qy   8401 gtattttcaaacgcaaacttttcacactaaaacccaaaaccggcaggattttctttcaga 8460
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Qy  11581 gcccatcataatacactccttgactatcactgatagctgtgctcttttcagaacgatctg 11640
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Qy  11701 ttctcgcatactcttcgttgatctctccgctctcacacttctctcggtagcccagcaacg 11760
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Db  27460 TTCTCGCATACTCTTCGTTGATCTCTCCGCTCTCACACTTCTCTCGGTAGCCCAGCAACG 27519

Qy  11761 ccatctcgtttccaccgacttggagccaccatagggagccatcacatctgtcgataccgt 11820
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  27520 CCATCTCGTTTCCACCGACTTGGAGCCACCATAGGGAGCCATCACATCTGTCGATACCGT 27579

Qy  11821 catctgagaaagagtttctattaaaatgttagaaacacatagcactacatatgcaaataa 11880
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  27580 CATCTGAGAAAGAGTTTCTATTAAAATGTTAGAAACACATAGCACTACATATGCAAATAA 27639

Qy  11881 cgtttcaccagattcagaatgcgcaattcatgcctatctcatagcctacctatgtgtcta 11940
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  27640 CGTTTCACCAGATTCAGAATGCGCAATTCATGCCTATCTCATAGCCTACCTATGTGTCTA 27699

Qy  11941 cctgagtatctacttgagtaccttgcaaagaagattaatcggcacaaaccaagtcaagac 12000
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Db  27700 CCTGAGTATCTACTTGAGTACCTTGCAAAGAAGATTAATCGGCACAAACCAAGTCAAGAC 27759

Qy  12001 tttgttggcataggtcttccaggtgagtaacgccgacattatacataggtacgcacaaaa 12060
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  27760 TTTGTTGGCATAGGTCTTCCAGGTGAGTAACGCCGACATTATACATAGGTACGCACAAAA 27819

Qy  12061 ccttccccaaataataatccttaccataacaaacttcatatttcgcctccacagcaatac 12120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  27820 CCTTCCCCAAATAATAATCCTTACCATAACAAACTTCATATTTCGCCTCCACAGCAATAC 27879

Qy  12121 tgatctcatcgtcatcattcacttcattcaaagtaatccaagttgagttcaaaaagagtc 12180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  27880 TGATCTCATCGTCATCATTCACTTCATTCAAAGTAATCCAAGTTGAGTTCAAAAAGAGTC 27939

Qy  12181 cgacaagcctggtctctgtttggatgcagttgtgaatctgaa 12222
          |||||||||||||||||||||||||||||||||||||||||
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